

Abstract.

An electrochemical cell, such as an SOFC cell, comprising a nickel based electrode structure, such as in form of an NI/YSZ anode, to which Mn has been added. According to the invention, the added amount of Mn of the part of the anode  
5 extending less than 20  $\mu\text{m}$  from the electrolyte represents 0.5 to 5 metal atom%. As a result, the efficiency of the electrode is increased, said efficiency typically being defined by the power loss associated with the electrode process, the electric conductivity of the electrode and the catalytic activity of said electrode.